

## Title (en)

Soluble shell polymer composition and method for its preparation

## Title (de)

Lösliche Hüllenpolymerzusammensetzung und Verfahren zu deren Herstellung

## Title (fr)

Composition de polymère d'enveloppe soluble et son procédé de préparation

## Publication

**EP 2567990 A1 20130313 (EN)**

## Application

**EP 12180558 A 20120815**

## Priority

US 201161532142 P 20110908

## Abstract (en)

The present invention relates to a soluble shell polymer composition comprising an alkali soluble emulsion polymer shell and an alkali insoluble emulsion polymer core, which composition is stabilized by a surfactant of the formula  $R-(OCH_2CH_2)_2-6OSO_3-M+$ , where R is a linear, branched, or cyclic C 8 -C 24 alkyl or C 12 -C 18 aralkyl group and M + is a counterion. The invention further relates to a method of preparing the composition and its use as a binder in coatings formulations. Formulations prepared with the soluble shell polymer composition have excellent freeze-thaw profiles and hiding.

## IPC 8 full level

**C08F 265/06** (2006.01); **C08F 2/22** (2006.01); **C08F 230/02** (2006.01); **C08K 3/22** (2006.01); **C09D 151/06** (2006.01)

## CPC (source: EP KR US)

**C08F 20/10** (2013.01 - KR); **C08F 265/00** (2013.01 - KR); **C08F 265/06** (2013.01 - EP US); **C08L 33/04** (2013.01 - KR); **C09D 133/04** (2013.01 - KR); **C09D 151/06** (2013.01 - EP US); **C08F 230/02** (2013.01 - EP US)

## C-Set (source: EP US)

**C08F 265/06 + C08F 2/22**

## Citation (applicant)

US 7705082 B2 20100427 - PORZIO ROBERT SHANE [US], et al

## Citation (search report)

- [X] EP 1433797 A1 20040630 - ROHM & HAAS [US]
- [X] EP 1398333 A1 20040317 - ROHM & HAAS [US]

## Cited by

KR20150006351A; CN109913025A; EP2955199A1; AU2015202748B2; AU2015202748B9; US9932431B2

## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## Designated extension state (EPC)

BA ME

## DOCDB simple family (publication)

**EP 2567990 A1 20130313**; **EP 2567990 B1 20140319**; AU 2012216399 A1 20130328; AU 2012216399 B2 20140612; BR 102012021942 A2 20150623; CN 102993617 A 20130327; CN 102993617 B 20141210; KR 101490171 B1 20150205; KR 20130028016 A 20130318; US 2013066005 A1 20130314; US 8883880 B2 20141111

## DOCDB simple family (application)

**EP 12180558 A 20120815**; AU 2012216399 A 20120823; BR 102012021942 A 20120830; CN 201210328028 A 20120906; KR 20120099379 A 20120907; US 201213597335 A 20120829